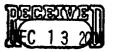
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December 13, 2001

By Courier

Docket Coordinator, Headquarters
United States Environmental Protection Agency
CERCLA Docket Office
1235 Jefferson Davis Highway
Crystal Gateway #1, First Floor
Arlington, VA 22202

Re: Comments on the Proposed Listing of Sauget Area 1, in Sauget and Cahokia, Illinois, on the CERCLA National Priorities List

Dear Docket Coordinator:

These comments are submitted by Pharmacia Corporation ("Pharmacia") and Solutia Inc. ("Solutia"), in its own capacity and in its capacity as Pharmacia's attorney-in-fact, in response to the proposal by the United States Environmental Protection Agency ("EPA") to list the "Sauget Area 1" sites on the National Priorities List ("NPL"). See 66 Fed. Reg. 47,612 (Sept. 13, 2001). Sauget Area 1 is an aggregation of a number of sites located in Sauget and Cahokia, Illinois. We enclose and incorporate by reference the following: Technical Report by Menzie, Cura & Associates, Inc., Comments on Sauget Area 1 HRS Scoring 2001 ("Menzie-Cura Report") (Dec. 12, 2001) (Exhibit 1); Affidavit of John Fiore, Maverick Construction Management, Inc. (Exhibit 2); Affidavit of Don Ridenhower, Solutia Inc. (Exhibit 3); Creekside Commentary (Solutia, Nov. 2000-Oct. 2001) (Exhibit 4); Unilateral Administrative Order

The company formerly known as "Monsanto Company" is today known as "Pharmacia Corporation." Pharmacia Corporation was formed in 2000 by the merger of Monsanto and Pharmacia & Upjohn, Inc. Effective September 1, 1997, the old Monsanto Company divided into two separate publicly held companies. As part of that spin-off, the division of Monsanto that operated the non-agricultural chemical business (including the W.G. Krummrich Plant in Sauget, Illinois) became what is now Solutia Inc.

These comments are submitted within the extended period granted to Solutia by EPA. See Letter to L. Tape (Thompson Coburn LLP) from D. Evans (EPA) (Oct. 17, 2001).

("UAO") as amended, (EPA, Aug. 29, 2001) ("Cleanup UAO") (Exhibit 5); Comments on the Proposed Listing of Sauget Area 1, in Sauget and Cahokia, Illinois, on the CERCLA National Priorities List (Monsanto, Sept., 16, 1996) (Exhibit 6); Petition to Rescind the Proposal to List Sauget Area 1 Sites, in Sauget and Cahokia, Illinois, On the CERCLA NPL (Nov. 15, 1996) (Exhibit 7); Supplemental Comments on the Proposed Listing of Sauget Area 1, In Sauget and Cahokia, Illinois, On the CERCLA NPL (Apr. 7, 1999) (Exhibit 8); Letter from Denita Reed, Mayor of the Village of Cahokia, to Docket Coordinator (Nov. 29, 2001) and Letter from Denita Reed, Mayor of the Village of Cahokia, to Christie Todd Whitman, Administrator of EPA (Nov. 28, 2001) (Exhibit 9); Statement By the United States Environmental Protection Agency (Aug. 2001) (Exhibit 10); map dated 1901 (Exhibit 11); aerial photograph dated 1962 (Exhibit 12); IEPA Letter to P. Sauget (Mayor) from M. Gade (Jan. 6, 1994) (Exhibit 13); IEPA Briefing Memorandum — Sauget Area 1 Sites (Jan. 20, 1994) (Exhibit 14); IEPA Memorandum to R. Carlson from B. Kuykendall (Mar. 22, 1985) (Exhibit 15); Deposition of Allyn Konrad (Mar. 14, 1995) (Exhibit 16); IEPA Memorandum to Division File from T. Powell (Jan. 6, 1983) (Exhibit 17); Letter to M. Gade (IEPA) from P. Sauget (Mayor) (Nov. 17, 1993).

EPA's decision to re-propose yet again a NPL listing of Sauget Area 1 at this late date is arbitrary and capricious. Such a decision, after so many years have passed, and so much progress has been made in cleaning up the sites, violates the substance and spirit of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended ("CERCLA") and EPA's own NPL regulations and guidelines.

Moreover, EPA erroneously calculated the Sauget Area 1 score at 50.00 under the Hazard Ranking System ("HRS"³). This score is premised on at least five fundamental errors by the Agency, which when corrected will result in lowering the scores for each individual site and, alternatively, the aggregated score for the entire Sauget Area 1, well below the 28.5 threshold for the NPL. Additional mistakes of a technical nature by the Agency when combined with the five major errors may result in scores that are even further below the 28.5 threshold. The scoring errors resulted from a variety of incorrect assumptions and misapplications of the HRS, including, among others:

- finding an "observed release" to water when no such release can be documented, and basing the alleged release on flawed sampling plans that fail to account for discharges from other nearby industrial "sources";
- improper aggregation of separate areas into one site;
- ignoring EPA-supervised cleanups at Dead Creek and treating them as though they never had taken place;

The HRS is set forth in Appendix A to the National Contingency Plan, 40 C.F.R. Part 300.

- characterizing a portion of creek bed as an "impoundment" even while taking the
 contradictory position that contamination has flowed through that portion to the
 rest of the creek and the wetland below it; and
- positing the existence of productive fisheries and of known endangered species'
 use of habitat in the scored area based on stale evidence which actually proves the
 absence of the requisite documentation.

As in Tex Tin Corporation v. EPA (Tex Tin II), 992 F.2d 353, 354 (D.C. Cir. 1993), the current listing proposal's "imprecision [has risen] to such a level that agency action becomes arbitrary and capricious and not otherwise in accordance with law."

The first fundamental error is the erroneous conclusion that there is an "observed release" to surface water. EPA purports to document a release by comparing chemical analyses of sediment samples taken from two locations in the same wetland, characterized by EPA as "background" and "release" areas. EPA erroneously characterizes the wetland as a branched water body with clear cut "flow" directions, but as Menzie-Cura demonstrates there is no predominant direction in which substances move within the wetland, which is actually dry much of the time. Moreover, the "release" samples were taken from a location directly downgradient of an offsite culvert that discharges runoff from nearby industrial sites that are not part of Sauget Area 1. While the offsite culvert has been known to EPA since at least 1996, EPA chose to ignore its existence. Background samples might have been taken from a clearly upstream portion of the wetland at the receiving end of the offsite culvert, which feeds into the wetland area where the "release" samples are located, yet such locations were not sampled in any of the numerous sampling programs that have been implemented or required by EPA. In any event, EPA could not document a release from Dead Creek because the entire creek bed has been dewatered and is in the last stage of being excavated, and lined with an engineered membrane where EPA determines lining is needed. As a consequence, the purported "background" samples do not represent background and the purported "release" samples do not show a release from Sauget Area 1.

EPA's second fundamental error lies in its attempts to aggregate the seven distinct and disparate areas that spread between the villages of Sauget and Cahokia into a single "site." Even though the different areas — which EPA erroneously deems "sources" — vary widely in ownership, operation, disposal practices, and cleanup requirements, EPA strains to magnify their potential threats to the environment by combining them. Scored separately, each of the areas has

⁴ All sediment in Dead Creek from segments known to EPA as Segments A through E have been removed. Sediment from Creek Segment F will be removed in the next couple of months. Creek Segment B will be lined, and all sections of the Creek will be sampled after those removal activities to confirm that all contaminated sediment has been removed.

a score that is even lower than the maximum possible score of the aggregated areas, thus reflecting the lack of any true risk.

Aggregation is particularly egregious for the inclusion of "Sources" 1, 2, and 3, i.e., the creek bed. Cerro Copper spent close to \$13 million in 1990 to clean Creek Segment A, under the supervision of the Illinois Environmental Protection Agency ("IEPA"). As the scoring package notes, a total of 27,500 tons of sediments were removed from Creek Segment A and disposed of at authorized landfills. Similarly, at EPA's demand and with EPA's oversight, Solutia has spent nearly \$20 million to clean the rest of the creek bed at "Source 2" and "Source 3." When the cleanup is completed just a few months from the submission of these comments, the entire creek will have been cleaned and lined with an engineered membrane where EPA determines lining is needed. Studies prepared for EPA demonstrate that with completion of these cleanups none of the purported Dead Creek "sources" pose any real risk to human health or the environment. Inclusion of these alleged "sources" is inappropriate and misleads area residents by suggesting that the area should be a Superfund site when in fact it has already been cleaned up.

Irrespective of aggregation, EPA's third fundamental error is that EPA scores each of the alleged "sources" in Dead Creek as though they are filled with unmitigated hazardous materials, ignoring the fact that under EPA's own direction and supervision Solutia has completed removing and containing hazardous materials from several of these areas and almost completed these activities in the other areas. Even if each area were to be scored separately, this makes no sense for "Sources" 1, 2, and 3, and they do not belong in any proposed listing.

As a fourth fundamental error, EPA mischaracterizes "Source 2" as an "impoundment" in contravention of EPA policy and the facts, thereby greatly overestimating the quantity of hazardous substances deemed to be present under the HRS. EPA's decision to mischaracterize what could — at worst — be considered "contaminated soil" under the HRS overlooks the manner in which wastes came to be located in this purported "source" and results in a significant unjustified increase in the hazardous waste quantity component of the HRS score.

Fifth, EPA mischaracterizes old, fragmentary telephone notes and other references to conclude that commercial fishing with a known annual production takes place within the short stretch of the Mississippi River near the area that is being scored, and to conclude that an endangered species of bird uses the habitat being scored. These stale references do not support EPA's conclusions, and in fact prove that the required documentation does not exist.

EPA's scoring errors reflect the reality that placing Sauget Area 1 on the NPL would be inappropriate and would not fulfill Congress's purpose for creating the NPL. The NPL is EPA's basis for identifying and prioritizing sites, marshalling and publicizing information, and planning response actions. In the present matter, all of these actions have already been completed, and cleanup of Sauget Area 1 is almost completed. Therefore, listing Sauget Area 1 would serve no purpose.

For the reasons set forth in the Menzie-Cura Report and in these comments, the proposal to list Sauget Area 1 on the NPL is arbitrary and capricious and an abuse of discretion. Pharmacia and Solutia therefore request that EPA act expeditiously to (1) withdraw the proposal to list Sauget Area 1 on the NPL and remove Sauget Area 1 from the list of sites proposed for NPL listing, and (2) not finalize the NPL listing of Sauget Area 1.

In these comments, Pharmacia and Solutia will present certain background information and will then describe the significant errors EPA made in scoring Sauget Area 1. The comments are organized generally to correspond to EPA's HRS Documentation Record for Sauget Area 1 ("HRS Documentation Record"). We address these matters as follows:

I. BACKGROUND

EPA and state investigations of properties in the vicinity of Sauget and Cahokia, Illinois, began almost 30 years ago; however, attempts to develop information that could justify listing any of the properties on the NPL have repeatedly failed. See, e.g., HRS Documentation Record Reference ("Ref.") No. 3a at pages 2-53 to 2-65. The subject of the present HRS, Sauget Area 1, consists of a 1.7 mile stretch of Dead Creek and adjacent areas between the villages of Sauget and Cahokia. See Menzie-Cura Report at Figure 1. A number of alleged Sauget Area 1 "sources" are located in and along the sides of Dead Creek. EPA even included its so-called "Source 3" which was never a "source" of anything. Understandably, EPA was unable to assign any quantity value to this purported "source" and the "source" contributes nothing to the overall score. Dead Creek and the other alleged "sources" form a roughly north-south axis which lies roughly one mile east of and parallel to the Mississippi River.

The bigger picture, however, is that the entire area extending from immediately adjacent to the Mississippi River and eastwards through Sauget Area 1 historically has been used for a wide variety of industrial activities. See Ref. No. 3a at Ch. 2. The IEPA had originally divided this larger area into two areas, Sauget Area 1 and Sauget Area 2, and a number of "peripheral sites" which IEPA concluded could not be aggregated. Ref. No. 3a at page 2-1. IEPA had defined Sauget Area 1 as the northernmost portion of Dead Creek and adjacent sites (now "Sources" 1, 2, 4, 5, 6, and 7). Ref. No. 3a at page 2-1. Sauget Area 2 currently comprises a broad band of properties adjacent to the Mississippi River and parallel to Sauget Area 1. At the north, the two Areas are arbitrarily separated by Route 3. A narrow strip of wetland lies south and east of the Phillips Pipe Line Company terminal and tank farm facility, between and below the southern tips of Sauget Area 1 and Sauget Area 2.

EPA's earlier pronouncements regarding the Sauget area have added layers of nomenclature. For the sake of clarity, we note that "Source 1" is also referred to as Creek Segment-A; "Source 2" as CS-B; "Source 3" as CS-C, CS-D, CS-E, and part of CS-F; "Source 4" as Site G; "Source 5" as Site H; "Source 6" as Site I; and "Source 7" as Site L.

Dead Creek was first scored for possible inclusion in the NPL in 1982. See Ref. No. 3b at page B-21. In December 1984, IEPA submitted to EPA an HRS package showing a score of 29.23 for "Dead Creek and surrounding sites." See Ref. No. 3a at page 2-63. EPA rejected the package as deficient. Id. To support another scoring attempt, IEPA retained Ecology and Environment, Inc. ("E & E") in 1985 to conduct sampling for an Expanded Site Investigation of both Sauget Area 1 and Sauget Area 2, as well as "peripheral" sites. See id. at 64. E & E performed sampling in 1986 and 1987. Altogether, the Expanded Site Investigation studied eighteen areas from the Mississippi River eastwards past Dead Creek. See Ref. No. 3a at pages 2-1, 2-2, 2-4. Although a large amount of sampling was performed, the study results still could not justify listing any site. Consequently, IEPA conducted additional sampling in 1991. IEPA's samples detected the presence of some substances within what is now referred to as the wetlands along Creek Segment F. On the basis of that sample, IEPA concluded that it would pursue listing what is now labeled Sauget Area 1, but did not explain why any substance was attributable to Sauget Area 1 as opposed to any other area or site. See Ref. No. 4a.

The United States EPA subsequently became involved in rescoring Sauget Area 1 for a proposed listing issued in 1996. See 61 Fed. Reg. 30,575 (June 17, 1996). EPA's 1996 rescoring erroneously yielded a score of 61.85 premised on at least five fundamental errors, which when corrected resulted in scores for each individual site and, alternatively, in the aggregate all well below the 28.5 threshold for the NPL. As in the current 2001 rescoring, in 1996 EPA used "background" sediment samples in an attempt to demonstrate an "observed release" to surface water, but the background samples were not taken from any location that could be correctly characterized as background pursuant to EPA's own rules and guidances. As in the current 2001 rescoring, in 1996 EPA assumed the presence of large quantities of hazardous wastes at a part of Dead Creek that had already been cleaned up. As in the current 2001 rescoring, in 1996 EPA compounded the other errors by aggregating the disparate sites for a combined score, even though aggregation was not supported by EPA's own rules and guidances.

In response to comments submitted on September 16, 1996 by Solutia on the 1996 rescoring, EPA did not finalize its proposal to list Sauget Area 1 on the NPL based on the 1996 score. In apparent recognition of the numerous deficiencies documented in Solutia's comments, EPA commissioned a Preliminary Ecological Risk Assessment for Sauget Area 1, Creek Segment F, which was issued in August 1997. Ref. No. 65.

In 1998, EPA issued a Special Notice Letter to twenty-six parties giving them the opportunity to perform an Engineering Evaluation and Cost Analysis ("EE/CA") of the "source" areas and of Dead Creek sediment, and a Remedial Investigation/Feasibility Study ("RI/FS") of

⁶ EPA also added other sampling data to the record, on which Monsanto commented. See Supplemental Comments on the Proposed Listing of Sauget Area 1, In Sauget and Cahokia, Illinois, On the CERCLA NPL (Apr. 7, 1999) (Exhibit 8).

the groundwater in Sauget Area 1. As part of these studies, a human health risk assessment and an ecological risk assessment were undertaken. Of the twenty-six parties who received the special notice, only Monsanto/Solutia stepped forward to undertake the studies. On January 21, 1999, Monsanto/Solutia entered into an Administrative Order on Consent (hereinafter, the "AOC") with EPA to perform the EE/CA and RI/FS work. See Ref. No. 10 and Ref. No. 63.

In June of 1999, EPA issued a Unilateral Administrative Order ("UAO") that requires Solutia to replace culverts along Dead Creek in order to improve drainage. Subsequently, Solutia and EPA agreed to the culverts that needed replacement, and those culverts have been replaced.

In May 2000, EPA issued another UAO (amended on August 29, 2001) to Solutia, requiring excavation of all contaminated materials in the purported Dead Creek "source" areas referred to in EPA's listing proposal, encapsulation of the excavated materials in a Resource Conservation and Recovery Act ("RCRA")-compliant and Toxic Substances Control Act ("TSCA")-compliant containment cell, and lining of all of Creek Segment B and any other areas deemed necessary by EPA, which among other things will ensure that no contamination can enter any rainwater that may intermittently flow along the creek channel. See Exhibit 5 (hereafter, "Cleanup UAO"). In November, 2000, Solutia installed equipment to dewater the creek. Solutia also constructed an engineered cell, approved by the State and EPA, to encapsulate and contain the materials that are removed from the creek. Solutia has removed all contaminated materials from Creek Segments B through E and is currently in the process of completing the remainder of the work required by the UAO. Completion of the creek sediment removal is scheduled for early 2002.

Notwithstanding the fact that Solutia has almost finished removing all contaminated creek sediments under EPA's oversight, EPA has issued another rescoring and proposed listing of Sauget Area 1 on the NPL. However, in lieu of conducting a sampling plan designed to obtain the necessary information to support a rescoring, EPA elected to rely on information already obtained as part of the EE/CA, the RI/FS, and the 1997 Ecological Risk Assessment of Creek Segment F. As detailed below, these studies relied on by EPA do not contain the information required to support a scoring under EPA's own rules and guidances.

II. LISTING SAUGET AREA 1 WOULD NOT SERVE THE PURPOSES OF THE NPL

As the D.C. Circuit has recognized, listing on the NPL has significant, real consequences for a site and those allegedly liable for it. Nonetheless, the listing of the Sauget Area 1 site on the NPL does not serve the purposes that EPA claims for NPL listing or any other legitimate purpose. EPA claims that the NPL is "primarily to serve as an informational tool for use by EPA in identifying sites that appear to present a significant risk to public health or the environment." 49 Fed. Reg. 37,070, 37,071 (Sept. 1984). The initial identification of a site for the NPL will help determine which sites require further investigation, and to determine what

response action, if any, will be appropriate. *Id.* According to the United States Court of Appeals for the D.C. Circuit, the NPL is "intended to be a 'rough list' of prioritized hazardous waste sites; a 'first step in a process." *Kent County v. EPA*, 963 F.2d 391, 394 (D.C. Cir. 1992). It is to be an "initial determination of which sites may warrant further action under CERCLA." *RSR Corp. v. EPA*, 102 F.3d 1266, 1270 (D.C. Cir. 1997); see also Eagle-Picher Industries, Inc. v. EPA, 759 F.2d 905, 911 (D.C. Cir. 1985). After NPL listing, the site may undergo a more extensive investigation, such as an RI/FS. See 49 Fed. Reg. at 37,081; see also HRS Guidance Manualat 3 (demonstrating that NPL listing is to occur during the "Site Assessment Phase," while the RI/FS is to occur after NPL listing, during the "Remedial Phase").

EPA sets forth the following purposes of the NPL: (1) determining which sites warrant further investigation to assess the nature and extent of the human health and environmental risks associated with a site; (2) identifying when CERCLA-financed remedial actions may be appropriate; (3) notifying the public of sites EPA believes warrant further investigation; and (4) serving notice to potentially responsible parties ("PRPs") that EPA may initiate CERCLA-financed remedial action. See http://www.epa.gov/superfund/action/law/npl hrs.htm.

In the case of the Sauget Area 1 sites, this proposed NPL listing is not a "first step" in the process, nor is it an "initial determination" of whether the sites warrant further investigation. Rather, the proposed listing is occurring after IEPA has spent over \$1.3 million and twenty years investigating the sites, after the EE/CA and RI/FS are nearing completion, and after the PRPs and the public are well aware of the existence of the sites and the need for additional investigation and action – action which is already being undertaken, and for which the PRPs have already spent over \$33 million. See IEPA, "Briefing Memorandum – Sauget Area 1 Sites" (Jan. 20, 1994) (Exhibit 14); see also sections II(A) to II(C), below.

A. <u>Listing Sauget Area 1 is not justified because EPA and IEPA have already determined which sites warranted further investigation and have already assessed the nature and extent of the human health and environmental risks associated with the sites.</u>

A principal purpose of NPL listing does not exist in this case, because EPA, as well as IEPA, have already extensively investigated Sauget Area 1 and risk studies are about to be completed. The IEPA has been investigating Sauget Area 1 since at least 1971. See Ref. Nos. 16, 17, 59. Formal reports were prepared in 1980-81. In 1985, IEPA began a full scale RI/FS of

⁷ See Ref. No. 7, Thermal Infrared Survey of Hazardous Waste Sites, East St. Louis, Illinois (EPA, Feb. 1981); Ref. No. 13, A Preliminary Hydrogeologic Investigation in the Northern Portion of Dead Creek and Vicinity (Ron St. John, Apr. 1981).

the Sauget Area, but later changed the scope of the project into an Expanded Site Investigation ("ESI") in order to gather additional data for NPL scoring purposes. See Ref. No. 3a at 1-1, 2-64. The E & E Expanded Site Investigation studied eighteen areas from the Mississippi River eastward past Dead Creek, and was completed in May of 1988. See Ref. No. 3a at 2-1, 2-2, 2-4. Beginning in 1991, at EPA's request the IEPA conducted a Screening Site Inspection of Sauget Area 1. See Ref. No. 4a at 1. In 1993, EPA contracted with PRC Environmental Management, Inc. ("PRC") to collect information to supplement the E & E and IEPA studies. See Ref. No. 14 at 1. By August 1997, E & E completed a "Preliminary Ecological Risk Assessment for Sauget Area 1, Creek Segment F." See Ref. No. 65.

Despite its pursuit of NPL listing, EPA has already determined how the Agency should address Sauget Area 1. In 1998, EPA sent Special Notice Letters to twenty-six PRPs giving them the opportunity to undertake an EE/CA and RI/FS. Thus, EPA had already concluded that it would not wait for NPL listing to get an in-depth, complete investigation underway in Area 1. Monsanto/Solutia was the only party to step forward and agree to perform the studies. Pursuant to the terms of the January 21, 1999 AOC, Solutia implemented an EE/CA for the alleged Sauget Area 1 "source areas" and allegedly impacted areas of Sauget Area 1 and an RI/FS of the groundwater. See Ref. No. 22 at § I. As part of this EE/CA and RI/FS process, both a human health risk assessment and an ecological risk assessment were completed.

Solutia has spent between \$4.5-\$5.0 million in completing the EE/CA and RI/FS. Sampling for the EE/CA and RI/FS began in the Fall of 1999, and was completed by Spring 2000. Solutia's sampling results were compiled in a data validation report. See Ref. Nos. 40a and 40b. Draft human health and ecological risk assessments were submitted to EPA and IEPA in January 2001. A draft EE/CA and RI/FS was also submitted in March 2001, and is currently being finalized. The human health risk assessment has been completed and agreed to as final by EPA.

B. <u>Listing Sauget Area 1 is not justified because a cleanup of Dead Creek is</u> almost completed.

NPL listing is not necessary because Dead Creek is currently being cleaned and lined as EPA has determined is needed. While Solutia was performing the EE/CA and RI/FS discussed above, Solutia was also conducting cleanup response actions in the Sauget Dead Creek area. Both actions were pursuant to unilateral administrative orders ("UAO") issued by EPA. Pursuant to the first UAO, issued on June 21, 1999, Solutia replaced culverts in Dead Creek to

See Memorandum to R. Carlson from B. Kuykendall (IEPA, Mar. 22, 1985) (Exhibit 15).

⁹ Special Notice of Liability (EPA, Sept. 9, 1998).

improve hydraulic efficiencies, and Solutia conducted related studies to ensure the success of the project.¹⁰

EPA issued the second UAO (May 31, 2000, and amended on August 29, 2001¹¹), pursuant to which Solutia has been excavating contaminated sediments from Dead Creek and a nearby location, and encapsulating the sediments in a lined containment cell that is engineered to be compliant with both RCRA and TSCA. See Affidavit of John Fiore (Exhibit 2). EPA determined that completion of this project "will address risks posed by the contaminated sediments in Dead Creek." Solutia began dewatering Dead Creek by November 2000, and by September 2001 Solutia had finished constructing the containment cell. Fiore (Exhibit 2). Sediment excavation and removal began in early summer 2001. Id. All the sediment has been removed from Creek Segments B through E, and removal from Creek Segment F will be completed by February 2002. Id. This project is expected to cost approximately \$20 million. ¹⁴

EPA has acknowledged that Solutia's excavation and cleanup of Dead Creek abated any imminent and substantial endangerment to the public health, welfare, and the environment. See Cleanup UAO at § IV(7) (Exhibit 5). Because of this, EPA determined that Dead Creek did not need to be included in the Human Health Risk Assessment conducted under the EE/CA and RI/FS. See generally, Human Health Risk Assessment (approved Nov. 15, 2001). Moreover, this Human Health Risk Assessment for Area 1 demonstrated that, given the removal of the Creek sediments, there is no more than minimal risk from the other alleged "source areas" near the creek (i.e., "Sources" 4, 5, 6, and 7). See id.; see also Menzie-Cura Report at 6, 11.

C. <u>Listing Sauget Area 1 is not justified because PRPs and the public have already been notified of the existence of the sites and the need for additional investigation.</u>

PRP and public notification and participation objectives underlying NPL listing are not served in this case, since EPA has already notified PRPs and the public of the existence of

¹⁰ See Unilateral Administrative Order, No. V-W-99-C-554 (Jun. 21, 1999) at § V.3.A.

¹¹ See Amended Unilateral Administrative Order, No. V-W-99-C-554 (Aug. 29, 2001) (Exhibit 5).

The Cleanup UAO requires cleanup of Dead Creek Segments B, C, D, E, and a portion of CS-F, as well as "Site M." Site M is not scored for the current listing proposal.

¹³ Action Memorandum (Aug. 29, 2001) at § V.

¹⁴ Previous cleanups also were conducted at Creek Segment A (removing over 27,500 tons of contaminated sediment, and backfilling the creek bed with clean material and covering it with gravel), and at "Source 4" (excavating contaminated soils, and solidifying oiled areas, and installing a barrier wall to prevent migration). See HRS Documentation Record at 20, 44.

the Sauget Area 1 sites and EPA's intentions regarding the sites. In particular, EPA issued to the PRPs a Special Notice Letter in 1998 for the EE/CA and the RI/FS. Even before that, certain PRPs had been notified, and were conducting investigations and cleanups.¹⁵ Additional PRP notification has been made in the form of EPA's 1999 cost recovery action against numerous PRPs.

The public is already fully aware of the existence of the Sauget Area 1 sites, and has been kept informed of new developments over the years as Solutia has proceeded with the work under the EE/CA and RI/FS, as well as the cleanup work under the UAOs. Solutia has participated at every Cahokia town hall meeting in the last few years to address residents' questions regarding work at the sites. See Affidavit of Don Ridenhower and attached Power Point Presentation for Cahokia Town Hall Meeting (Exhibit 3). Solutia also publishes a periodic newsletter entitled "Creekside Commentary" (Exhibit 4), outlining recent developments in the Dead Creek cleanup, and operates a twenty-four-hour community hotline to address residents' concerns as they arise. See Ridenhower (Exhibit 3).

Certainly, after twenty years of sampling and studies, and the expenditure of millions of dollars by IEPA, EPA, Solutia and other parties, the proposal for NPL listing has not proved expeditious or inexpensive. See, e.g., RSR Corp. v. EPA, 102 F.3d at 1270. Nor is it apparent what purpose NPL listing would serve. The time has long passed where listing of the sites would have any benefit. Today, a thorough investigation of the sites is complete, removal of the greatest and most immediate human or environmental threat is complete, and final remedy determination is underway.

As the NPL is intended to make an initial determination of whether sites warrant further action, listing for Sauget Area 1 is arbitrary and capricious, not otherwise in accordance with law, and inappropriate.

III. EPA FAILED TO COMPLY WITH EXECUTIVE ORDER 12866 FOR PLANNING AND REVIEW OF SIGNIFICANT REGULATORY ACTIONS

EPA failed to weigh the costs and benefits of listing Sauget Area 1 on the NPL, failed to identify and assess available alternatives to the proposed listing, and failed to comply with numerous other substantive and procedural requirements imposed by Executive Order 12866.¹⁶ Had EPA performed the required analyses, EPA could not have avoided the obvious

¹⁵ See, e.g., Site Investigation for Dead Creek Sector B and Sites L and M, Sauget-Cahokia, Illinois (Geraghty & Miller, Inc., Mar. 1992) (Ref. No. 5); Final Report For the Removal of Contaminated Creek Sediment at Dead Creek Segment A, Sauget, Illinois (Cerro Copper Products, Jun. 17, 1991).

¹⁶ Executive Order 12866 of September 30, 1993, Regulatory Planning and Review, 58 Fed. Reg. 51,735.

conclusion that the costs of listing Sauget Area 1 are outweighed by the negligible benefits – if any – of listing a site that is already being cleaned up by one or more private parties, an "available alternative" that in this case is not only already being implemented but is substantially completed. EPA could not have avoided its own recent conclusion that the cleanup that Solutia is presently completing "will address risks posed by the contaminated sediments in Dead Creek."

E.O. 12866 applies to any proposal by a federal agency for a "significant regulatory action." See E.O. 12866 at § 6(a)(3)(A). As a first step of compliance with E.O. 12866, each agency must determine whether it believes that any proposed action is a significant regulatory action. Id. An agency proposal is a significant regulatory action if it "may... adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs,... or communities." Id. at § 3(f)(1) (emphasis added).

EPA justified its non-compliance with E.O. 12866 by making the conclusory and unsupported statement that listing Sauget Area 1 "imposes no liability or costs." 66 Fed. Reg. at 47,615. EPA's conclusion is patently wrong and has already been contradicted by numerous court rulings, including three leading decisions by the United States Court of Appeals for the D.C. Circuit. The D.C. Circuit has ruled that placement on the NPL causes "serious costs," B & B Tritech, Inc. v. EPA, 957 F.2d 882, 885 (D.C. Cir. 1992), and "serious consequences," Kent County v. EPA, 963 F.2d 391, 394 (D.C. Cir. 1992). The courts recognize "damage to business reputation and loss of value in property, as well as other harmful consequences, when [a] site is listed . . . " Kent County, 963 F.2d at 394; SCA Serv. of Indiana v. Thomas, 634 F. Supp. 1355, 1361-66 (N.D. Ind. 1986). In the words of the D.C. Circuit, "[t]his circuit has clearly recognized the harmful effects of being linked to a site placed on the NPL." Mead, 100 F.3d at 155. In view of the D.C. Circuit's unequivocal words on this subject, the EPA's casual denials of impacts are unpersuasive.

The Mayor of the Village of Cahokia is vigorously opposing the proposed Sauget Area 1 NPL listing because it threatens four major economic revival projects that are currently in planning stages with early 2002 initiation dates. See Letter from Denita Reed, Mayor of the Village of Cahokia, to Docket Coordinator (Nov. 29, 2001) (Exhibit 9); Letter from Denita Reed, Mayor of the Village of Cahokia, to Christie Todd Whitman, Administrator of EPA (Nov. 28, 2001) (also Exhibit 9). The Mayor notes that the Human Health Risk Assessment indicates that the cleanup that Solutia is finishing in Dead Creek eliminates any unacceptable residential risks. Id. at letter of November 29, 2001. The Mayor concludes that: "There is a cost for this kind of listing, without any commensurate benefits." Id. In particular, the Mayor states:

¹⁷ Action Memorandum (Aug. 29, 2001) at § V.

It is clear to us that the listing will put potential investors on notice that EPA thinks the Area 1 Sites are among the worst environmental problems in the country and that they need further action. This listing will only result in investors, redevelopers and homebuyers looking elsewhere from the Cahokia area for their home and business needs. EPA cannot dispute that NPL listings have a negative impact on communities from a redevelopment perspective. Despite this, the agency is trying to list our community when none of its stated purposes are met.

Letter from Mayor Denita Reed to Docket Coordinator (Nov. 29, 2001) (Exhibit 9).

NPL listing of Sauget Area 1 would destroy the four current redevelopment plans and opportunities in the communities of Sauget and Cahokia, harm local businesses, cause job losses, and stigmatize and devalue local properties. Of particular concern, NPL listing could derail present plans to redevelop the area centered on the theme of Cahokia's rich history. Cahokia was the first permanent pioneer settlement along the Mississippi River, founded in 1699. The Parks Air College was founded in 1927, the first in the nation devoted to aeronautical studies. *Id.* In the early 1900s, the Cahokia airport was used by Charles Lindbergh and Amelia Earhart. The Village of Cahokia is presently negotiating a major community development project centered on the old airport and air college. This core for redevelopment is located in and adjacent to Sauget Area 1. Listing on the NPL could kill this project, and could severely hamper other redevelopment initiatives in the area for decades. *See* Letter from D. Reed to Docket Coordinator (Nov. 29, 2001).

The stigma attached to Superfund properties has already begun shadowing local property values in Cahokia and Sauget. Due to EPA's repeated proposals to list Area 1, banks have begun to be reluctant to extend loans to homeowners. Among other things, banks fear the possibility of Superfund-liens on mortgaged properties, impaired abilities of borrowers to make loan payments, and inability to re-sell any mortgaged properties in the event of foreclosures. NPL listing at this juncture would fulfill the first step in the scenario feared by lenders and greatly exacerbate this situation. EPA's claim that there are no impacts are belied by the Agency's own perception that it needed to issue a statement to alleviate community fears. See

¹⁸ See Cahokia Tricentennial Celebration, http://216.125.204.247/trice.htm.

¹⁹ The History of St. Louis Downtown Airport, http://web.rdr.net/~stlairprt/history.htm.

See Parx Foundation – Flightworks, http://members.rdr.net/~bobmc/confetr.htm (discussing the proposed "Flightworks" education center, museum, and aviation theme park).

http://members.rdr.net/~bobmc/where.htm.

Statement By the United States Environmental Protection Agency (Aug. 2001) (Exhibit 10).²² Moreover, decreased property values caused by NPL listing would cause lowered local government property tax revenues and concomitant lowered funding for community needs. Listing would also adversely impact local businesses, employers, and employment. Additionally, failure to proceed with the planned community development project would, of course, cut off attempts to establish new businesses in the community, to provide new services to the community, and to increase local employment. See id.

Derailment of Cahokia's redevelopment plan would, by itself, be devastating to the community. Cumulatively, the other impacts described above could exceed even that devastation to Cahokia and Sauget. In light of the numerous legal rulings that NPL listing seriously harms local economies and communities, EPA has critically erred by not performing the cost-benefit and other analyses required by E.O. 12866.

IV. EPA FAILED TO ESTABLISH AN "OBSERVED RELEASE" TO SURFACE WATER

EPA incorrectly scored an "Observed Release" for the surface water overland flood migration component of the HRS scoresheet. See HRS Documentation Record at page 3, Line 1; page 4, Line 14; page 5, Line 22. As discussed below, there is no basis for scoring an observed release. In particular, EPA's use of data is fatally flawed by inaccuracies which violate EPA's own policies and guidelines for the use of data for HRS scoring.

In the absence of any data supporting an observed release to surface water, EPA relies on additional sampling in 1997 (EPA's Preliminary Ecological Risk Assessment for Creek Segment F, at Ref. No. 65) and in 1999-2000 (Solutia EE/CA and RI/FS) in the wetland that is fed not only by Dead Creek but also by an offsite culvert that disperses flows from a broad industrialized region which includes "sources" unrelated to Dead Creek. This culvert passes under Cargill Road to the west of Dead Creek, and is referred to as the Phillips Culvert by Menzie-Cura. Menzie-Cura Report at 23-24 and Figure 2. The Phillips Culvert drains a pond along the east side of a terminal facility and tank farm operated since 1930 by Phillips Pipe Line Company. Fluids from the Phillips pond, which is north of Cargill Road, flow through the culvert into another small pond directly south of Cargill Road. The southern pond feeds the wetland that runs along Dead Creek Segment F. EPA was informed of the existence and likely effects of the Phillips Culvert in Solutia's 1996 comments on the proposed NPL listing of Sauget Area 1. Yet EPA has still not taken the Phillips Culvert into account. In particular, the sample locations designed into the 1997 and 1999-2000 sampling programs were not designed to

EPA's statement attempts to reassure residents that there is "no risk to human health or the environment" within the residential areas that were sampled, and that there will be no need to conduct any remedial action on residential soils. See Exhibit 10.

establish a "release" from any Dead Creek "sources"; rather, they were designed to assess any potential risks associated with substances detected at the locations chosen. See, e.g., Ref. No. 65 at pages 2-3 ("the primary goal of this assessment was to screen for human and ecological risk"). EPA compares one purported "background" sample to seven purported "release" samples from the 1997 program (HRS Documentation Record at 76-78), and eight purported "background" samples to twenty-three purported "release" samples from the 1999-2000 program (HRS Documentation Record at 80).

Both the purported "background" and the purported "release" sample locations, however, are in the same wetland, downgradient of the Phillips Culvert. None of the purported "background" samples were taken from the wetlands <u>upgradient</u> of the Phillips Culvert, which would be the only useful background. Moreover, there is no documentation in the HRS Documentation Record to demonstrate whether the purported "background" samples relied on by EPA are similar in sedimentary type to the purported "release" samples. EPA has improperly relied on these samples in assuming that an observed release occurred.

A. There can be no observed release because Dead Creek is dewatered and cleaned up.

In proposing to list Sauget Area 1, EPA fails to follow its own guidance. EPA's guidance provides that any decision to propose listing a site should take into account any documentation that "clearly demonstrates that there is no remaining release or potential for a release that could cause adverse environmental or human health impacts" OSWER Directive No. 9345.1-25 (April 4, 1997). EPA has failed to take such documentation into account.

In this matter, EPA has gone to great lengths to eliminate any potential for any release from any of the alleged "sources" in Dead Creek. The current removal of the sediments from the "sources" in Dead Creek ensures that there are no significant risks to human health or ecological receptors via the surface migration pathway that is scored in EPA's listing proposal. See Menzie-Cura Report at 3-6, 11. Pursuant to the May 2000 UAO (as amended) that EPA issued to Solutia, the entire length of Dead Creek above the Probable Point of Entry ("PPE") of the creek into the alleged "target" wetland has been dewatered and excavated, and all areas that EPA determines need to be lined are being lined with an engineered membrane liner. Moreover, "Source 1" was filled and paved over with gravel in 1990. The purpose of the work done under this UAO in combination with the 1999 UAO is to ensure, among other things, that only uncontaminated rainwater can flow along what remains of the channel of Dead Creek. Excavation has been completed along most of the former creek above the PPE at the time of this writing and will be completed for the entire length of the former creek just weeks after these comments are submitted, i.e. by the early 2002. Thus, there is zero potential for any release occurring from any of the alleged "sources" into the alleged surface water target.

B. The substances found in the "release" samples cannot be attributed to the seven alleged "sources" at Sauget Area 1.

There may be no better example of EPA's use of bad data than EPA's attempt to use the 1997 and 1999-2000 "release" samples to establish an "observed release" from Sauget Area 1. The samples cannot possibly establish such a release.

To establish an observed release based on sediment samples, EPA must establish that "some portion of the significant increase [over background levels is] attributable to the site" HRS § 4.1.2.1.1 (Ref. No. 1 at 51,609). In particular: "When other sources are present in the vicinity of the site being evaluated and may have contributed to the significant increase (e.g., in highly industrialized areas), it generally is necessary to obtain sufficient samples between the site being evaluated and other known potential sources (or between the site and adjacent sites) in order to demonstrate an increase in concentration attributable to the site." EPA, Hazard Ranking System Guidance Manual at 59 (OSWER Pub. 9345.1-07, Nov. 1992) ("EPA Guidance Manual") (emphasis added). In light of the sampling data from Dead Creek and the obvious relationship of the Phillips Culvert, EPA has failed to make the required demonstration that the levels of constituents found in the observed release samples are attributable to the site.

In this matter, EPA's selection of its purported "release" samples maximizes rather than minimizes the possibility of off-site interference. EPA failed to address whether or not the substances detected in the samples are attributable to areas outside of Sauget Area 1, including but not limited to the Phillips facility. In the present listing proposal, EPA states that Dead Creek "sources" have all received direct or indirect discharges of industrial waste and contain hazardous substances typical of the industries in the area." HRS Documentation Record at 85. The Sauget/Cahokia area has for many years been the location of a wide variety of heavy industrial activities, a fact acknowledged by EPA. Contamination in the area has not been limited to the Sauget Area 1 "source areas" and flow of contaminants into the creek. Studies have made various references to numerous alleged industrial sources. See, e.g., Historical Assessment of Hazardous Waste Management in Madison and St. Clair Counties, Illinois, 1890-1980 (Exhibit 6 at Tab 2). Other potential sources in the immediate area include, among others, Big River Zinc, Sterling Steel Foundry, Mobil Oil, Wiese Planning & Engineering Co., Metro Construction Co., Keeley Construction Co., Midwest Rubber Co., and the Parks Air College and Airport. See, e.g., Ref. No. 6 at 6-7. Thus, as EPA's own statements acknowledge, substances found in the wetland downgradient of the Phillips Culvert are more likely to be attributable to regional contamination than to any specific, potential sources in Dead Creek.

1. <u>Substances detected in the purported "release" samples are attributable to the Phillips Culvert outside of Sauget Area 1.</u>

As Menzie-Cura discusses, the 1997 and 1999-2000 "release" samples were taken from a location immediately downgradient of the Phillips Culvert that discharges runoff water into the wetland from sources other than Sauget Area 1. See Menzie-Cura Report at 22-28 and

Figure 2. The Phillips Culvert drains the wetland/impoundment area on the west side of the Phillips facility. Information on where the water in this impoundment originates, and what it was used for in the past is unavailable at this time. What is known is that the wetland area used to be part of the "Cahokia Chute" that ran from the Mississippi to the wetland area EPA uses as the PPE. See Map dated 1901 (Exhibit 11). A Rogers Cartage truck washing facility likely discharged at the impoundment. Between Phillips and Rogers, there are other obvious potential sources for the detected substances and in combination with the sampling in the creek, are enough that EPA has not met its burden to show an observed release. EPA was informed of the Phillips Culvert in 1996 but failed to use appropriately located samples to demonstrate that the "release" sample substances are not attributable to the Phillips facility or to any other sources draining to the Phillips Culvert. Available data, by contrast, point strongly to these other sources. As discussed immediately below, a comparison of the purported "release" samples with the other samples at the alleged "sources" strongly suggests that the concentrations found in the wetland originate from sources other than Sauget Area 1.

2. Substances detected in the "release" samples cannot be attributed to the alleged "sources" in Sauget Area 1.

Ignoring the direct discharge from the Phillips Culvert, EPA assumes instead that the substances detected in the wetland were funneled from the seven alleged Sauget Area 1 "sources" through Dead Creek. EPA's unfounded assumption contradicts the results of the 1999-2000 sampling program. As Menzie-Cura discusses, sampling performed before Dead Creek was cleaned up demonstrated that the concentrations of substances of concern decreased from north to south along the creek. Menzie-Cura Report at 25-28. However, concentrations spike to much higher levels immediately downgradient of the point of entry of the creek channel into the wetlands.²⁴ This area at which the wetland concentrations spike is also immediately

A 1962 aerial photograph (Exhibit 12) shows a truck washing facility located on the Phillips Pipe Line Company property adjacent to the wetland. Based on currently available information this was a truck washing facility for Rogers Cartage. See Deposition of Allyn Konrad (Mar. 14, 1995) at 14-15 (Exhibit 16); see also Interview with Dave Kramp, Regional Sales Manager for Rogers Cartage, in St. Louis (Jul. 5, 1995). According to Allyn Konrad, a former Rogers Cartage Terminal Manager, Rogers Cartage operated a Cahokia terminal prior to the building of the Sauget terminal around 1970. See Konrad at 14 (Exhibit 16). Mr. Konrad stated that this terminal was located in Cahokia about three miles south of the Sauget terminal. Id. at 15. Mr. Dave Kramp stated that the Rogers Cartage Cahokia terminal was located on the Phillips property. See Kramp Interview, above. According to Mr. Kramp, Rogers Cartage washed trucks out at the facility into a settling pond on the property. Id.

With respect to the PCB sample results, based on the 1999 sampling data, PCB levels tend to decrease as the sample results progress down the Creek, the only exception being the levels taken at the culverts along the Creek. PCB levels at the Creek culverts tend to increase, possibly due to the dropping out of the sediment where the flow decreases, or possibly due to truck washing activities, which were

downgradient of the Phillips Culvert. Thus, it is much more likely that the sources of the substances detected in the wetland are the industries that contribute or previously contributed to the waste streams flowing through the Phillips Culvert. Menzie-Cura Report at 23-28 and Figure 2. However, while EPA has required numerous sampling programs to be conducted at Dead Creek and in the wetland, including sampling directly downgradient of the Phillips Culvert, EPA has not sought any sampling in the wetland directly upgradient of and feeding into the Phillips Culvert. EPA has thereby failed to test the most likely possibility that known non-Dead Creek industrial sources are the source of the substances detected in the wetlands at which EPA has scored an "observed release."

EPA has the burden of adequately explaining the scientific basis for its listing decision, and of offering substantial evidence to support its decision, in order to overcome a challenge that the listing decision was arbitrary and capricious. See National Gypsum Co. v. EPA, 968 F. 2d 40, 41 (D.C. Cir. 1992). In this case, EPA has set forth no scientific basis to support its conclusion that the substances in the release samples are attributable to the sites. Instead, EPA makes the unfounded broad-brush statement that "hazardous substances in every source at the site are available to migrate to surface water by overland flow and/or flood." HRS Documentation Record at 85. However, as Menzie-Cura discusses, surface water sampling done for the EE/CA and RI/FS confirm that contaminants detected in Dead Creek sediments (which have now been removed) were not migrating. Menzie-Cura Report at 21.

common in Cahokia prior to the 1980s. For example, PCB sample results in CS-E tend to decrease until sample #FASED-CSE-26W-0-35in (1463 ppb), as compared to sample #FASED-CSE-S5E-0-24in (nd).

After the Creek flows under the Cargill Road culvert, the PCB sample results are low until FASED-CS-F-S28-0-10in (6,290 ppb), which is higher than any other PCB level found in the Creek after sample # FASED-CSE-S16E-0-21in (8,758 ppb). Possible "sources" of this contamination include the railroad line that runs across Dead Creek at CS-F, just prior to the Creek's entry into the wetlands, and truck washings at Cargill Road at Dead Creek, and at Cargill Road into the wetlands adjacent to the Creek.

The ecological analysis done in the wetlands pursuant to the EE/CA and RI/FS highlights the attribution problems to an even greater extent. Ecological samples were taken at or near the wetlands, as well as north in Dead Creek. Sampling in the two samples upstream from the CS-F samples show ND levels of PCBs. However, just after the railroad crosses Dead Creek at CS-F, the level jumps to 83 ppb. The next downstream sample is also 83 ppb, but the next sample where the Creek enters the Borrow Pit Lake is ND. These kind of sample results indicate that the PCB levels being found in the wetlands are not attributable to the Creek, but are more likely attributable to other "sources" such as the railroad, truck washings, or midnight dumping.

A similar phenomenon is found with respect to the metals sample results. Metals levels gradually decrease down the Creek until they jump back up slightly at CS-F. All the metals reviewed by EPA gradually decrease down the Creek until after the Creek passes under the railroad tracks. These types of results are inconsistent with materials that would have flowed downstream in the Creek as a result of overland flow from discharges to the northern end of the Creek. These increases are just as likely to be attributable to other "sources" in the area.

C. <u>EPA's samples used to establish an "observed release" did not follow proper protocol.</u>

EPA disregarded key quality assurance requirements for the 1997 sampling data that it alleges demonstrate an "observed release," in direct contravention of the National Contingency Plan ("NCP") and numerous EPA guidelines that set forth data quality requirements. EPA's guidelines require that the HRS Documentation Record contain the data necessary for an independent observer to replicate the scorer's determination that the supporting data are valid. As Menzie-Cura discusses, EPA relies on samples F102, F103, F104, F108, F107, and F109 to demonstrate the alleged "observed release," but the HRS Documentation Record fails to provide the required quality assurance/quality control ("QA/QC") data for key data quality indicators for those samples. In accordance with EPA's own QA/QC criteria and documentation requirements, all of the sample results are fatally flawed and cannot be used to demonstrate an observed release.

EPA's HRS Guidelines state in part, with original emphasis reprinted: documentation record is the central element of the HRS package. It contains all of the information upon which a site score is based and a list of the references from which the information was obtained. If a site's listing is challenged in court, EPA's defense of the site score is restricted to the information contained in the documentation record. . . . As a general rule, HRS documentation should be sufficient for an independent observer to replicate the observations, measurements, and calculations and arrive at the same quantitative or qualitative decision (factor value)." EPA Guidance Manual at 27. EPA requires extensive OA/OC data from its contractors and private parties. See, e.g., 40 C.F.R. § 300.420(c)(4). EPA has published numerous requirements for data quality control for sampling used to support HRS listing. Of particular note in this matter is Guidance for Performing Site Inspections Under CERCLA (EPA Directive 9345.1-05, Sept. 1992) ("SI Guidance"). EPA's SI Guidance presents procedural guidelines for investigating sites for the purpose of HRS scoring. See SI Guidance at viii. It states: "All analytical data should be evaluated for validity and applicability before scoring. Site assessment validation includes review of laboratory analyses and comparison of the body of data to performance criteria." Id. at 97. These requirements prevent inappropriate application of the data and exclusion of unacceptable data. Id. EPA requires that only results that meet the two most rigorous data quality levels can be used to demonstrate observed releases and attribution of such releases to sources, or for any other HRS scoring purposes. See id. at 99-100 & Table 5-2. These levels are referred to as Data Use Category I ("DUC-I") and DUC-II. Id. EPA did not observe its own requirement, however, with regard to the 1997 Sauget 1 data used to establish an observed release. Because of EPA's failure to follow its own rules, EPA may not use these data and has not established an observed release or attribution of any particular substances to any of the alleged "sources" that EPA deems to comprise Sauget Area 1.

As Menzie-Cura discusses, EPA omits key data quality indicators for PCBs, metals, pesticides, and other substances. Menzie-Cura Report at 28-31. The missing data quality

indicators are critical in determining the comparability, accuracy, precision, representativeness, and sensitivity of the samples that EPA alleges demonstrate an "observed release." *Id.* These data quality indicators are particularly important for sediment samples such as the ones used by EPA in this case, because sediment samples require cleanups and dilutions due to interferences. *Id.* The data quality indicators are needed, among other reasons, to eliminate the likelihood of falsely identifying the presence of contaminants that may not actually be present, and to ensure that any contaminants present are not reported to be at inflated concentrations. *Id.* Thus, sample results for F102, F103, F104, F108, F107, and F109 must be disregarded, and cannot be used to support EPA's assumption that there has been an "observed release" to surface waters.²⁵

D. <u>The background samples are not appropriate to establish, and do not establish, background concentration levels.</u>

EPA's guidance provides: "A background level for a site provides a reference point by which to evaluate whether or not a release of a hazardous substance from the site has occurred." EPA Guidance Manual at 67. Determining accurate background concentrations is required to establish an observed release by chemical analysis. See id. EPA's determination of background concentrations must be "defensible." Id. In the present case, EPA's selection of background locations is indefensible and violates EPA's own basic requirements.

1. The "background" samples are not "outside the influence of contamination from the site".

EPA's guidance states that "background samples should be outside the influence of contamination from the site" EPA Guidance Manual at 67. Contradicting this guidance, EPA chose sampling locations downgradient of Sauget Area 1. All of the "background" samples are from the northern portion of the wetland to which Dead Creek discharges. As Menzie-Cura discusses, EPA incorrectly assumes that the two northern "forks" of the wetland behave like two rivers with separate flows. In fact, water and any entrained contaminants circulate in the wetland only when there is water present, and the flow direction at any given time is determined by winds. See Menzie-Cura Report at 22. Thus, in the likely event that regional contamination funnels into the wetland through the Phillips Culvert, it is not surprising that some of the contamination has spread to the western "fork" of the wetland. Thus, the true significance of the "background" samples is that they establish that the wetland is influenced by outside sources.

²⁵ If such data were added to the record, Pharmacia and Solutia would request, and do hereby reserve the right, to comment on it.

2. The "background" samples were not collected "upstream from the potentially contaminated area".

EPA contradicted its own rules by collecting "background" data downgradient of Sauget Area 1, and the samples therefore cannot be used to demonstrate a release. EPA's guidance states: "Background samples should be collected *upstream* from the potentially contaminated area." EPA Guidance Manual at 74 (emphasis added); see also id. at Highlight 5-8 on page 75.

As discussed in point (D)(1), directly above, "background" samples in what EPA calls the western "fork" of the wetland are not upstream of the rest of the wetland. In particular, the "background" locations are not upstream of the eastern "fork" of the wetland, or of the point of entry of the Phillips Culvert, or of the point of entry of Dead Creek.

EPA failed to take "background" samples from the wetland at the upgradient end of the Phillips Culvert. Samples from that wetland could meet both of EPA's own criteria that background samples be taken "upstream" and that sufficient samples be taken between the site being evaluated and other known potential sources. EPA Guidance Manual at 59.

3. The "background" samples were not collected from areas chemically and physically similar to the release samples.

EPA contradicted its own guidances in another critical respect as well, further illustrating its use of poor data. EPA requires that background and release samples' grain size, organic content, and sediment structures be evaluated to establish comparability of the samples. Guidance for Performing Site Inspections Under CERCLA (EPA 540-R-92-021, Office of Solid Waste and Emergency Response, Sept. 1992). EPA requires that background samples be "as similar as possible" to release samples. EPA indicates that grain size of background and release sediment samples must be the same, because different sizes (such as clay versus sand) "adsorb hazardous substances such as metals and hydrophobic organic compounds" differently. EPA Guidance Manual at 76. Further, EPA indicates that concentrations of contaminants will vary depending on whether samples are taken from quiescent zones, such as riverbanks and sandbars, or from the more turbulent parts of a stream. Id. Thus, EPA requires that: "Where possible . . . a background sample taken near one bank generally should not be compared with a release sample taken from the center of the main channel" Id. at 74.

As Menzie-Cura discusses, EPA's sampling violates all of these prescriptions and proscriptions, thereby precluding any comparison of the "release" and "background" samples. See Menzie-Cura Report at 23. There is no analysis of the sediment types sampled in the HRS Documentation Record. The HRS Documentation Record does not document grain size and lithologic types of any of the samples. There is no basis to conclude that the "background" and "release" samples compared clays to clays or sands to sands, or to conclude that samples being compared were taken from comparable depositional and erosional environments. In fact,

the information that is available in the Record establishes that flow regimes were dramatically different between the northeast portion of the wetland where "release" samples were taken and the northwest portion of the wetland where "background" samples were taken. See HRS Documentation Record at Ref 65 at page 2-3.

V. EPA SHOULD HAVE SCORED THE LIKELIHOOD OF RELEASE AS ZERO

EPA erred in assigning any non-zero value for Likelihood of Release, because the distance from the purported "sources" to Old Prairie du Pont Creek exceeds two miles.

EPA's own rules require that a value of zero be assigned for Potential to Release for the Surface Water Overland/Flood Migration component if "the overland segment of the hazardous substance migration path for the watershed exceeds 2 miles before surface water is encountered." HRS § 4.1.2.1.2.1 (Ref. No. 1 at 51,609). An intermittent creek or ditch is not a "surface water" (except in arid or semiarid areas, which is not the case at Sauget). HRS § 4.0.2 (Ref. No. 1 at 51,605). Additionally, a wetland is not a "surface water" unless it is perennial. *Id.* Against this standard, neither Dead Creek nor the wetland identified by EPA are a "surface water," and first real "surface water" encountered is over two miles from where EPA incorrectly locates the PPE.

EPA acknowledges that Dead Creek above the alleged PPE is intermittent. HRS Documentation Record at 73. Moreover, "Source 1" was filled and paved over in 1990. The "Source 2" and "Source 3" portions of the creek have been cleaned, lined as needed, and restored to a clean, shallow channel for occasional rain water.

EPA errs critically, however, in stating that the "overland segment terminates at the <u>perennial</u> wetland in CS-F, where the in-water segment begins." HRS Documentation Record at 73 (emphasis added). As Menzie-Cura discusses, neither the channel of CS-F through the purported "wetland" nor the "wetland" itself is perennial. Menzie-Cura Report at pages 12-22. The references cited by EPA in an attempt to show that these areas are perennial do not support EPA's proposition. *Id.* Menzie made numerous observations over a five year period of dry conditions in the creek and the "wetland." *Id.* While there are ponds upgradient of the alleged PPE at the two ends of the Phillips Culvert, the "wetland" and CS-F are dry most of the time. As the photographs by Menzie-Cura illustrate, the "wetland" is actually the forested, slightly depressed border of a farmland which is occasionally flooded, and CS-F is a dry channel running through the eastern edge of the "wetland." *Id.* at 14.

The first true perennial water body downgradient of the purported "source areas" is Old Prairie du Pont Creek, which is separated from the intermittent "wetland" by a levee. The distance from the closest potential source to Old Prairie du Pont Creek is greater than two miles. See Menzie-Cura Report at 20-21. Thus, using an overly-conservative measurement, the distance to surface water for the aggregated Sauget Area 1 site exceeds the threshold distance for

assigning a value of zero for potential for release. The distance to surface water is even greater for the other disaggregated "source" areas. *Id*.

VI. EPA MISCALCULATED THE SURFACE WATER PATHWAY "WASTE CHARACTERISTICS" VALUE

EPA miscalculated the surface water overland flood migration component "Waste Characteristics" by overstating the "Hazardous Waste Quantity." See HRS Documentation Record at page 3, Line 7; page 4, Lines 16-17; page 5, Lines 24-25. EPA overstated the Hazardous Waste Quantity in four ways. First, EPA erroneously included the contaminated materials that were removed and are currently being removed from Dead Creek. Second, if one were to assume for the sake of argument, contrary to all common sense, that the areas that have been cleaned and are in the process of being cleaned should be counted, EPA still overstated the source Hazardous Waste Quantity values for "Source 2." See HRS § 2.4.2.1.5 (Ref. No. 1 at 51,591). The underlying cause for the overstatement was that EPA incorrectly classified "Source 2" as a surface impoundment. Id. at § 2.4.2.1.1 & Table 2-5. Third, EPA incorrectly included in the Hazardous Waste Quantity surface water sediments contaminated by migration, from "Source 3." Id. at § 1.1, page 51,587.

Since the wastes have been or in some cases are in the process of being removed from every one of the "sources" in Dead Creek counted by EPA, the correct value for each of the "sources" is zero. If, for the sake of argument, the prior and current cleanups were ignored, then the quantity estimated for "Source 2" still would have to be corrected in light of EPA's incorrect classification of it as a surface impoundment; the corrected value based on EPA's estimated area would be 3.2 for "Source 2."

A. EPA incorrectly counted "Sources" 2 and 3, since they have been, or are in the process of being, cleaned up.

Solutia has been cleaning-up the entire length of Dead Creek and all of the "sources" in Dead Creek counted by EPA. Yet, in scoring Sauget Area 1, EPA ignores this major program as though it had never taken place.²⁶ EPA improperly relies on site inspection information that is over fifteen years outdated.²⁷

Moreover, there is no logical reason for EPA to include "Source 1" in the listing proposal, since Cerro Copper spent close to \$13 million in 1990 to clean that segment of the creek under the supervision of IEPA. The creek was backfilled, lined with a plastic vapor barrier, topped with an engineered cover, and is now used as a parking lot. Although it is still listed as an Area 1 "source," it is not scored due to "insufficient" (EPA's word) information to determine the remaining quantity of hazardous substances in the area.

The Ecology & Environment Expanded Site Inspection was initiated in 1985, over fifteen years prior to EPA's current HRS scoring.

Solutia is nearing completion of the EPA-supervised cleanup of Dead Creek, performed pursuant to the Cleanup UAO. See Exhibit 5. The UAO requires that Solutia excavate contaminated sediments and soils from Dead Creek and conduct confirmatory sampling in all excavated areas. Id. at §I. EPA has determined that this cleanup will eliminate all significant risk that may have existed from the Dead Creek "sources." Id. at §III(10). Accordingly, because the sediments were removed from the exposure areas, the sediments were not considered in the Human Health Risk Assessment and the Ecological Risk Assessment conducted as part of the EE/CA and RI/FS. See HHRA, Table 1-1.

Under the Cleanup UAO for Area 1, the following volumes of contaminated soils and/or sediments, are being removed from Dead Creek Segments B through F (which encompasses "Sources" 2-3 as identified in the HRS Documentation Record):

- CS-B: 18,500 cubic yards (including 7,400 cy of sediment; 3,700 cy of creek bed soil; and 7,400 of flood plain soil)
- CS-C: 5,200 cubic yards of sediment
- CS-D: 4,400 cubic yards of sediment
- CS-E: 14,800 cubic yards of sediment
- CS-F: 5,000 cubic yards of sediment.

See Cleanup UAO at § V.3.B.1 (Exhibit 5). So far, 40,000 cubic yards of sediment have been removed from the creek bed. Construction of the on-site containment cell is complete, and sediment disposal in the cell has begun. All affected sediments have been removed from Creek Sections A through E, and the sediment from Creek Segment F will be removed by February 2002. See Fiore (Exhibit 2).

Yet nowhere in the HRS Documentation Record does EPA even mention the fact that there is an ongoing cleanup in Dead Creek. Under EPA's revised policy for considering waste removals in HRS scoring, EPA should have considered the ongoing removal action in "Sources" 2 and 3 in its scoring calculations for Area 1. In light of the cleanup, proposing to list any of the purported Dead Creek "sources" is not only inappropriate, but also contradicts EPA's common sense Superfund reforms. EPA, on October 2, 1995, announced that as part of Superfund reforms designed to "make smarter cleanup choices that protect public health at less cost," EPA was revising its policy to take into account current or recent response actions when listing a site on the NPL. See EPA Fact Sheet on Administrative Changes to be Implemented to Reform Superfund Program (Oct. 2, 1995), reprinted in 191 Daily Env't Rep. (BNA) E-1 (Oct. 3, 1995). See also Memorandum from Stephen D. Luftig, Director, EPA Office of Emergency and Remedial Response, to Jerry Clifford, Director, EPA Office of Site Remediation Enforcement, regarding Superfund Reforms Implementation Plan (Dec. 6, 1996), reprinted in 239 Daily Env't

Rep. (BNA) E-1 (Dec. 13, 1995). The purpose of this reform was to "provid[e] incentives for voluntary cleanup, and encourag[e] reuse or redevelopment of the property." *Id.* at *EPA Fact Sheet*. In particular, this reform was "designed to eliminate disincentives for early response actions by . . . private parties at sites being considered for the NPL" *Guidance Due On Response Actions Before Listing of Contaminated Sites*, 27 Env't Rep. (BNA) 451 (June 14, 1996). While EPA's revised policy provides for not scoring wastes addressed in an interim removal action, Solutia's cleanup work in the creek has gone much further by permanently eliminating all potential risks of contamination of surface waters from Dead Creek "sources" scored by EPA. In light of this new policy, it is even clearer that EPA should have considered the almost completed removal action in Sources 2 and 3 in its HRS scoring considerations. ²⁹

EPA's failure to consider Solutia's ongoing (and almost completed) cleanup of the creek is illogical when contrasted with EPA's explicit recognition and acknowledgment of the removal action completed by Cerro Copper in 1990 in "Source 1." EPA states in the current HRS scoring package that "[t]he removal action at Source 1 has reduced the quantity of hazardous waste present in the source," and that information available was "insufficient to determine with reasonable confidence the quantity of any remaining hazardous substances in the area..." See HRS Documentation Record at 21. Notably, EPA had previously included CS-A in its 1996 scoring package, assigning it a hazardous waste quantity value of 8,009.62. The removal action that is ongoing, and nearing completion, in "Sources" 2 and 3 should be treated the same way in the scoring; that is, no waste quantity should be scored.

B. EPA incorrectly classified "Source 2" as a surface impoundment.

EPA overstated the "source" hazardous waste quantity value for "Source 2" because the Agency classified that area as a surface impoundment. Hazardous waste quantity is estimated using one of four increasingly imprecise methods listed in the HRS. In descending order of precision, the methods are hazardous constituent quantity, hazardous wastestream quantity, volume, and area. See HRS § 2.4.2 et seq. (Ref. No. 1 at 51,590-91). EPA chose to estimate the hazardous waste quantities by using the area method. See HRS Documentation Record at 30-31. When using the area method, the hazardous waste quantity is derived by dividing the estimated area by a divisor that varies depending on the type of source. The divisor for sources classified as contaminated soil is 34,000. By contrast, the divisor for surface

²⁸ See OSWER Directive No. 9345.1-25 (April 4, 1997).

Even under the old guidance, where the Site Inspection date was the date for determining when a removal action could be considered for HRS scoring purposes, EPA allowed for a later cutoff date where the first Site Inspection was conducted more than four years prior to HRS scoring. See EPA, OSWER #9345.1-03FS, "The Revised Hazard Ranking System: Evaluating Sites After Waste Removals" (Oct. 1991) at 2. In the case of Sauget Area 1, the Ecology & Environment Expanded Site Inspection was initiated in 1985, over fifteen years prior to this HRS scoring.

impoundments is only 13. See HRS § 2.4.2.1.1 at Table 2-5 (Ref. No. 1 at 51,591). Thus, by classifying "Source 2" as an impoundment, EPA inflated its estimated hazardous waste quantities by a factor of over 2,600 times the correct amount.

EPA erred because "Source 2" is not a surface impoundment and — if it is a source at all — should be classified as contaminated soil. (As discussed at (C) directly below, the vast majority of contaminated materials that were removed from "Source 2" actually were sediments.) To be a "surface impoundment," as that term is defined in EPA's HRS guidance, requires that a depressed, excavated, or diked area be "designed to hold accumulated liquid wastes." EPA Guidance Manual at 43 (emphasis added). On the other hand, "contaminated soil" is defined as a soil underburden onto which a hazardous substance has been "spilled, spread, disposed, or deposited." Id. at 42. Any contaminated soil at "Source 2" was not intended for holding waste, and it did not contain or accumulate wastes for extended periods of time. Since the concentration of wastes is lower for contaminated soil, the area divisor is relatively larger. See HRS § 2.4.2.1.1.

"Source 2" does not meet the definition of surface impoundment because it was not designed to hold accumulated liquid wastes. "Source 2" is simply a segment of Dead Creek. As part of Dead Creek, "Source 2" was not "designed" to "hold" anything and in fact did not "hold" anything. In fact, the creek "flowed at a sufficient velocity to erode through the silt and clay deposits of the upper Cahokia Alluvium into the fine sands and silty sands typically found at the base of the Cahokia." See Ref. No. 3a at 4-23. Numerous reports indicate that the adequacy of the alleged blocking of the culverts has been questioned, and flow "emanating from the culvert has been observed on several occasions." See Ref. No. 3b at B-1; IEPA, "Memo to Division File" from T. Powell (Jan. 6, 1983) (Exhibit 17).

EPA's erroneous classification of "Source 2" contradicts the Agency's other aspects of the Agency's logic in its listing proposal. On the one hand, EPA takes the position that "Source 2" is an impoundment because it was allegedly "sealed" at the culverts at both ends. HRS Documentation Record at 23. On the other hand, EPA acknowledges that "Source 2" was "not completely sealed," and alleges that "a yellow substance" was observed flowing through "Source 2" to "Source 3", in order to buttress the allegation that "Source 2" is a source that contaminates the entire downstream portion of Dead Creek and the target wetlands. *Id.* EPA states further: "Because of surface topography and the lack of adequate containment for the other Sauget Area 1 sources, CS-C, CS-D, and CS-E, along with the intermittent portion of F, have received hazardous substances through runoff from upstream Area 1 sources." *Id.* at 32.

Thus, a source that is designed for holding an accumulation of liquid wastes will have a relatively large quantity of the concentrated wastes for a given surface area, and the waste will be present there over an extended period of time.

In an attempt to characterize "Source 2" as a surface impoundment, EPA relies on sundry allegations that the culverts at Queeny Avenue and Judith Lane were intermittently blocked. See HRS Documentation Record at 23. However, the allegations cited by EPA are vague and confused and are contradictory as to when the alleged blockages occurred and how long they may have lasted.³¹ According to IEPA, there is no formal record of how the Judith Lane culvert came to be blocked, nor is there information regarding whether the blockage was carried out by a private party or governmental unit. See Letter to P. Sauget (Mayor) from M. Gade (IEPA) (Jan. 6, 1994) (Exhibit 13).³²

Because EPA has presented no evidence even tending to show that "Source 2" was ever intended to accumulate or hold liquid wastes, "Source 2" cannot properly be classified as an impoundment. Using "contaminated soil" as the only classification that arguably could apply if "Source 2" is to be considered as a "source," the hazardous waste quantity value for "Source 2" should be no greater than 3.2.

C. <u>EPA erred by including "Source 3" in the net Hazardous Waste Quantity</u> values because it incorrectly counted sediments contaminated by migration.

EPA overstated the Hazardous Waste Quantity because it incorrectly included the quantity of wastes estimated to exist in "Source 3." The HRS provides that hazardous waste quantities are evaluated only for "each source (or area of observed contamination)." HRS § 2.4.2 (Ref. No. 1 at 51,590). Moreover, EPA's guidance states that areas of observed contamination are "evaluated only in the soil exposure pathway," EPA Guidance Manual at 41, but EPA impermissibly used them here in connection with the surface water pathway. "Source" is defined as an area where a hazardous substance has been placed. *Id.* at § 1.1, page 51,587. The definition specifically excludes "surface water sediments that have become contaminated by migration" *Id.* EPA, in its HRS scoring package, states that the soil in Creek Segments C through F has become contaminated by the migration of hazardous substances. *See* HRS Documentation Record at 32. EPA has advanced no evidence that there were any direct discharges into "Source 3." "Source 3" was contaminated by migration from adjacent areas, and the materials that were in "Source 3" (prior to the cleanup) were sediments, not soils. *See* Menzie-Cura Report at 21.

As one example of the confusion, the HRS Documentation Record states that the culvert between CS-B and CS-C at Judith Lane, was (based on aerial photographs) first blocked between 1950 and 1962. HRS Documentation Record at 23. In contrast, in the Cleanup UAO, EPA alleges that the Judith Lane culvert was blocked "at some point after 1943." See Exhibit 5 at § III.3. In its AOC for the EE/CA and RI/FS, EPA alleges yet another date (1965) as to when the culvert was blocked. See AOC at § III.1.

³² IEPA had written this letter in response to Paul Sauget's letter to IEPA referencing the belief that IEPA had blocked the Judith Lane culvert. *See Letter to M. Gade (IEPA) from P. Sauget (Mayor)* (Nov. 17, 1993) at 1 (describing Dead Creek as a "natural waterway" that flows through Sauget and Cahokia).

EPA's failure to characterize "Source 3" as sediments contradicts the Agency's own logic as well as IEPA's logic. EPA's listing proposal relies on *sediment* samples taken from the creek. See HRS Documentation Record at 33-40. The UAO for the creek cleanup requires the removal of "non-native creek sediments" from CS-C through F. The UAO also contains four criteria to determine what constitutes "sediment" that is subject to removal at Creek Segments C through F under the UAO. See Cleanup UAO at § V.3.B.1 (Exhibit 5). IEPA, in its 1992 CERCLA Screening Site Inspection Report, refers to Dead Creek "sources" as "contaminated sediments." See Ref. No. 4a at 2-2.

Elimination of a Source Hazardous Waste Quantity value for "Source 3" is important because the non-zero value assigned would become important if EPA were to correctly account for the current cleanup of all of the other "sources" in Dead Creek.

VII. EPA MISCALCULATED THE SURFACE WATER PATHWAY "TARGETS" VALUES

A. EPA incorrectly assigned a value for the Human Food Chain Threat "Food Chain Individual".

EPA incorrectly assigned a value of 20 for the Human Food Chain Threat "Food Chain Individual." See HRS Documentation Record at page 4, Line 18. The high target value calculated by EPA contradicts the low threat actually posed by Sauget Area 1. There is in fact no significant bioaccumulation occurring. Menzie-Cura demonstrates that EPA failed to take into account evidence collected by IEPA, and IEPA's determination "that, for several organic compounds including total PCBs, the local fish population is not accumulating these substances above United States Food and Drug Administration (FDA) Action Levels." Menzie-Cura Report at 21. IEPA's survey "demonstrated that the concentrations of several organic contaminants in fish tissue in Prairie du Pont Creek are similar to the background fish tissue bioaccumulation of organic contaminants in fish throughout the American Bottoms. In particular, these data show that there is no transport and uptake of PCBs to the biota of the Prairie du Pont Creek from any upstream sources in excess of local background in the American Bottoms." Id.

EPA's inclusion in the listing package of data from "fish tissue samples collected from the wetland along the CS-F and from reference locations in another watershed" is irrelevant and highly misleading. The samples were not from any potentially affected water body downstream of the Probable Point of Entry identified by EPA, and thus cannot establish a "release." Nor can they establish "background," because, first, they are not from an unaffected upstream area, and second, EPA's own rules prohibit the use of fish samples for such purposes. See EPA Guidance Manual at 62.

³³ HRS Documentation Record at 79.

1. <u>A Food Chain Individual value should not have been assigned because</u> there was no observed release.

The HRS provides that a value of 20 should be assigned only "if there is an observed release of a hazardous substance having a bioaccumulation potential factor value of 500 or greater to surface water in the watershed and there is a fishery (or portion of a fishery) present anywhere within the target distance limit" HRS § 4.1.3.3.1 (Ref. No. 1 at 51,620). As discussed above at section IV of these comments, EPA cannot demonstrate an observed release. Therefore, EPA's assignment of a value of 20 for the "food chain individual" score is erroneous.

2. A Food Chain Individual value should not have been assigned because there is no documented fishery present.

In order to assign a Food Chain Individual value based on a fishery, (1) EPA must document that there is a fishery present in the target distance limit ("TDL") of the surface water migration area downgradient of the Probable Point of Entry from a Sauget Area 1 source area, and (2) EPA must document the water flow rate at the fishery, and (3) EPA must document the annual production in pounds at the fishery. See HRS § 4.1.3.3.1 (Ref. No. 1 at 51,620); see HRS Documentation Record at 94. EPA actually has documented that the required information does not exist. First, EPA cites to an interview with a State specialist who provided the names of two local fishermen who supposedly fish in "Horseshoe Lake." Ref. No. 43. However, for reasons not disclosed, EPA does not document whether these persons were contacted to determine if they actually do fish in the TDL. Second, EPA cites a handwritten annotation of a 1993 telephone conversation with an unnamed Cahokia police department desk officer who reportedly stated that he had seen people fishing downstream of the Cahokia sewage treatment plant. Ref. No. 42. (That anyone would fish at a sewage plant strains credibility on its face.) Moreover, EPA acknowledges that there is no information available on the water flow rate at this alleged fishery, and therefore EPA concludes that it cannot be used to assign a Food Chain Individual value. See HRS Documentation Record at 94. Nonetheless, EPA inserts these alleged fishery "facts" into the record. Third, EPA grounds its assigned value on handwritten annotations of two telephone conversations with two specialists in the Illinois Department of Conservation. See Ref. No. 43 and Ref. No. 45. Both specialists stated that they did not have any production information for any fishery that might exist in the TDL. One specialist did know that no shellfish are harvested in the TDL. Id. at Ref. No. 43. In the absence of any affirmative information that a fishery actually exists in the TDL and any information on its annual production, if any, the other specialist stated only that a two hundred mile stretch of the Mississippi River had an estimated production in 1991 of 277,000 pounds. *Id.* at Ref. No. 45. In an attempt to convert this glaring absence of supporting information into a score value for the proposed Sauget Area 1 listing, EPA divided the estimated production for the 200 mile river section by the approximate length of the TDL, and used the resulting poundage as the alleged fishery production for the TDL. HRS Documentation Record at 94. In fact, there is no documentation whatsoever of the existence of a fishery in the TDL or of an annual production rate for the non-existent fishery.

B. EPA incorrectly assigned a value for the Environmental Threat "Sensitive Environments - Level II Concentrations".

EPA also incorrectly assigned a value of 100 for the Environmental Threat "Sensitive Environments — Level II Concentrations." See HRS Documentation Record at page 5, Line 26b. Assigning any Level II Concentration or Potential Contamination value would contradict the low threat actually posed by Sauget Area 1 and would contradict the low bioaccumulation documented by IEPA (see above at section VII(A)).

1. <u>A Level II Concentration value should not have been assigned because</u> there was no observed release.

The HRS provides that a Level II Concentrations value should be assigned only if there is an observed release. See HRS § 4.1.4.3.1., § 4.1.2.3 (Ref. No. 1 at 51,625, 51,613). As discussed above at section IV of these comments, EPA cannot demonstrate an observed release. Therefore, Level II Concentrations are inapplicable.

2. <u>A Level II Concentration value should not have been assigned because there are no documented endangered species habitats present.</u>

EPA assigns a Sensitive Environments Rating Value of 50 on the purported ground that the surface water migration route contains a "habitat known to be used by a State designated endangered or threatened species." See HRS Documentation Record at 99; compare HRS Table 4-23, HRS § 4.1.4.3.1.2 (Ref. No. 1 at 51,624-25). To assign a habitat-based value, EPA is required to document that a specific area bounded within the TDL downgradient of the Probable Point of Entry actually is used by an endangered species. See EPA Guidance Manual at 318-324. However, EPA's sole documentation is an almost five-year old report that notes a bird-sighting on one day somewhere in the area of Dead Creek.

The HRS Documentation Record does not contain any creditable documentation that any endangered or threatened species uses the alleged Sauget Area 1 TDL as its habitat. EPA cites a preliminary risk assessment report prepared in the summer of 1997 for Creek Segment F. See Ref. No. 65. The report states that the Black-Crowned Night Heron was observed at the "site," which appears to mean some part of Creek Segment F, which could be either in the alleged "source" area or in the downgradient TDL. Id. at page 2-2. A list appended to the risk assessment report indicates that the Black-Crowned Night Heron had been observed on April 18, 1997, "at the northeast wetland extension above the confluence with Dead Creek." Id. at Appendix B-2 (emphasis added). Thus, even this one record which EPA purports to document an endangered species presence is at best ambiguous and self-contradictory as to whether the Black-Crowned Night Heron is said to have been seen inside or outside of the area being scored. Moreover, nothing in this one bird-sighting four years ago suggests that the Black-Crowned Night Heron is "known" to "use" the TDL, as would be required by the HRS rule. To the contrary, EPA cannot and does not cite to any State, federal, or non-governmental bird

inventory that would list the Black-Crowned Night Heron as occurring in the portions of the wetlands, streams, and Mississippi River that are included in the Sauget Area 1 TDL. For instance, in regard to non-Level II scoring, EPA cites numerous sources that vaguely report various species of birds in the general area of Sauget, but none of those sources place the Black-Crowned Night Heron in the TDL. A more recent memorandum in which a State Department of Natural Resources field biologist provided bird information for the area mapped by EPA notably does not list the Black-Crowned Night Heron as either present or known to use the habitat. See Ref. No. 64. Another memorandum from the State mentions only that the Black-Crowned Night Heron was previously observed in the town of Alorten, Illinois, and speculates that birds may "fly considerable distances . . . to forage." Ref. No. 66. Such complete speculation is not an adequate factual predicate for NPL listing.

VIII. EPA MISCALCULATED THE "HRS SITE SCORE" BECAUSE SAUGET AREA 1 WAS IMPROPERLY AGGREGATED

Aggregating the seven disparate sites for this HRS scoring was yet another fundamental error committed by EPA. Aggregation also contradicts EPA's own logic by which, in all other documents other than its NPL listing proposals, EPA has referred to at least four of the Area 1 "sources" as separate "sites" (including Site G, Site H, Site I, and Site L).³⁴ See, e.g., AOC for EE/CA and RI/FS (Jan. 21, 1999); Cleanup UAO (Exhibit 5).

Aggregation, among other things, leads to the absurd result of proposing to include on the list of the nation's top priorities for cleanup a purported "source" ("Creek Segment A," which EPA calls "Source 1"), which Cerro Copper has already voluntarily spent close to \$13 million to clean, fill, line, and cover, under IEPA's supervision. It also led to the absurd result of aggregating into Sauget Area 1 the "tail" of Dead Creek — an alleged "source" ("Source 3") with no quantifiable waste volume. Further, it would include the other areas ("Sources" 2 and 3) that are already being cleaned pursuant to the UAO as amended August 2001. While aggregation is particularly inappropriate in light of the EPA-supervised cleanup of all of the alleged "source" areas, which is almost completed, the following comments are based on the overly conservative assumption that hazardous areas still exist.

A landmark ruling by the United States Court of Appeals for the D.C. Circuit makes clear that EPA's decision to list any part of Sauget Area 1 must be based on individual HRS scores for each of the seven individual sites. See Mead Corp. v. EPA, 100 F.3d 152 (D.C. Cir. 1996); see also Montrose Chem. Corp. v. EPA, 132 F.3d 90, 94 (after Mead, EPA takes the position that it will no longer rely on aggregation policy without separate NPL listing process). The Mead court noted that there are only two criteria by which a site can be listed by EPA: the

Despite multiple prior references to "Sources" 4, 5, 6, and 7 as "sites"; EPA chose to designate these sources as "areas" for purposes of the NPL listing documents (i.e., "Areas" G, H, I, and L).

site must have an HRS score of at least 28.50, or the site must be the subject of a health advisory issued by the Agency for Toxic Substances and Disease Registry ("ATSDR").³⁵ (In addition, each state may designate one highest priority site for inclusion on the NPL.) The court flatly rejected EPA's contention that its Aggregation Policy is authorized by CERCLA section 104(d)(4), 42 U.S.C. § 9604(d)(4). For the sake of argument, the court assumed that CERCLA section 105(a)(8)(B), 42 U.S.C. § 9605(a)(8)(B), might be construed to permit aggregating sites on the NPL. However, the court concluded that even under such a construction, each site so aggregated must individually qualify for listing.

As EPA did not determine the individual scores for the seven Sauget Area 1 sites, the Agency has no basis for a listing decision. This means the proposal is fatally flawed and must be terminated. Moreover, our comments above show that none of the Sauget Area 1 sites qualifies for listing in any event. The disaggregated site scores are well below 28.50, and the Record does not contain an ATSDR health advisory for any of the seven sites, or the related determinations required of EPA.

The Mead court stated: "The factors named in the Aggregation Policy bear only the dimmest relation to any idea of risk." Mead, 100 F.3d at 153. That conclusion is poignantly obvious in the case of the Sauget Area 1 sites. The result of aggregation is that the potential environmental threats from each of the seven Sauget Area 1 sites was improperly attributed to all the sites, so that seven low threat sites were made to appear falsely as one high threat site. The Mead Court of Appeals further stated: "This circuit has clearly recognized the harmful effects of being linked to a site placed on the NPL." Id. at 155.

EPA also violated its own policy by aggregating the seven sites for this HRS scoring. See Linemaster Switch Corp. v. EPA, 938 F.2d 1299, 1309 (D.C. Cir. 1991). EPA's policy excludes from aggregation sites that entail multiple waste generators, more than one type of waste, or more than one potentially responsible party. Id. EPA's policy on site aggregation states: "For purposes of the NPL, EPA has decided that in most cases such sites should be scored and listed individually because the HRS scores more accurately reflect the hazards associated with a site if the site is scored individually." 48 Fed. Reg. 40,658, 40,663 (Sept. 8, 1983, emphasis added) ("Aggregation Policy").

A. Disaggregating the sites more accurately reflects the hazards associated with them.

Lacking information that could even arguably support HRS scores of 28.5 or higher for each of the seven sites, EPA improperly aggregated them. The result of aggregation is

³⁵ 40 C.F.R. § 300.425(c)(3) To list a site pursuant to an ATSDR health advisory, EPA must also make two determinations: that the release poses a significant threat to public health; and that it will be more cost-effective to use EPA's remedial authority than to use removal authority to respond to the release. *Id.*

that the potential environmental threats from each of the seven sites are grossly exaggerated. As the most egregious examples, "Source 1" is tainted by aggregation with the other sites, even though it has been successfully cleaned up under IEPA's supervision, and "Sources" 2 and 3 are tainted by aggregation even though they are in the last stage of being cleaned up under EPA's supervision. EPA's scoring package treats "Sources" 1, 2, and 3 as if they still constitute a creek bed containing water and sediments, whereas in reality the creek has been dewatered, the sediments excavated and removed to a RCRA and TSCA compliant containment cell, and the creek is being lined with an engineered membrane where EPA determines is needed. It is arbitrary and capricious, and an abuse of discretion, for EPA to blind itself to the current status of this purported "source" in ranking it for the NPL.

Aggregation also taints each of the seven sites with the incorrectly scored "observed release" to water in the wetland. See section IV, above. EPA strained to demonstrate an observed release to water based on defective sample locations. EPA compounds this error by attempting to apply its defective conclusion to all seven sites, without properly attributing the alleged release to any one of them.

Aggregation further taints each of the seven sites with inflated values for hazardous waste quantity. Assuming for the sake of argument that EPA correctly estimated the quantities for each site, the Source Hazardous Waste Quantity Values for the individual sites range from ">0" at "Source 3" to 8,356.5 at "Source 2." See HRS Documentation Record at 31, 42.

B. The sites were not part of the same operation.

EPA's Aggregation Policy - even if it had not been invalidated by Mead provides that two sites may be aggregated if, among other common factors, they were part of the same operation which deposited similar substances using similar means of disposal. However, Sauget Area 1 includes seven distinct areas, most of which EPA alleges were affected by numerous different operations. EPA alleges that "Source 1" historically received discharges from a variety of industrial processes. HRS Documentation Record at 19. EPA alleges that "Source 2" received wastes from "Source 1," Midwest Rubber Company, Waggoner Trucking Company, and four other sources. Id. at 24. EPA alleges that "Source 4" was owned and/or operated by Harold Wiese and Cerro Copper Products Company. AOC at §III(4). EPA alleges that "Source 5" was owned and/or operated by Leo Sauget and the Rogers Cartage Company. AOC at §III(4). "Source 6" was once owned or operated by Leo Sauget, Paul Sauget, Cerro Copper Products Company, the Alton & Southern Railroad, and the Village of Sauget. AOC at § III(4). EPA alleges that "Source 7" was owned and operated variously by Waggoner & Company, Ruan Transport Corporation, Metro Construction Equipment, Inc., L. Keeley Paving and Construction Company, and Rogers Cartage Company. AOC at § III(4). EPA's own descriptions could not demonstrate more clearly that the distinct areas were not all part of the same operation.

C. Substances at the sites were not deposited using similar means of disposal.

EPA's Aggregation Policy — even if it had not been invalidated by *Mead* — provides that two sites may be aggregated only if, among other common factors, they were part of the same operation which deposited similar substances using similar means of disposal. However, Sauget Area 1 includes seven distinct areas, which EPA alleges used varying different means of disposal. EPA alleges that substances were disposed of at "Sources" 1, 2, and 7 in surface impoundments; that substances were disposed of at "Sources" 4, 5, and 6 in landfills; and in "Source 3" as contaminated soil. Moreover, the various purported "surface impoundments" and "landfills" were used in widely different manners. For instance, "Source 1" is allegedly a surface impoundment because its flow was directed after substances were discharged to it, while "Source 7" is allegedly a backfilled surface impoundment to which wastes were discharged. The landfills were allegedly operated in widely different ways. *See* HRS Documentation Record at 43, 49, 56.

The Sauget Area 1 sites are an aggregation of surface impoundments, landfills, and creek segments. The diversity of the types of "sources" and the uses of the "sources" demonstrate that operations or disposal practices at the "sources" were not similar. "Source 1" received effluents from Cerro Copper and sewage from the Village of Sauget. "Source 2" may have received liquid wastes from Midwest Rubber Company, and Waggoner Trucking Company. See HRS Documentation Record at 24. According to the HRS Documentation package, wastes from "Source 1" and "Source 2" may have been flowing downstream to "Source 3." See id. at 32. EPA alleges that "Source 4" operated as a landfill, and that intermittent dumping occurred at the site. See AOC at § III(2). "Sources" 5 and 6 allegedly operated as the "Sauget-Monsanto Landfill. See HRS Documentation Record at 49, 56. "Source 6" also received dredged wastes from "Source 1." See id. at 56. "Source 7" was the former location of a disposal impoundment used by Waggoner Company and Ruan Trucking Company. See HRS Documentation Record at 64.36

D. EPA did not demonstrate that similar substances were deposited at each of the seven sites.

EPA's Aggregation Policy – even if it had not been invalidated by *Mead* – provides that two sites may be aggregated only if, among other common factors, they were part of the same operation which deposited similar substances using similar means of disposal. However, EPA fails to demonstrate that similar substances were deposited at the seven sites in Sauget Area 1. The sampling data relied upon by EPA may indicate some overlap in substances

Although the AOC states that "Source 7" was used as a disposal impoundment from 1971 to 1981, the HRS Documentation Record states that "Source 7" was used as a disposal impoundment from 1971 to 1978. See HRS Documentation Record at 64.

found at some of the seven sites, but that does not demonstrate whether those substances were deposited at each of the sites or migrated to them. A mere partial overlap in some wastes found at two locations does not show that the same waste was deposited at the two locations.

E. A single strategy for cleanup is not appropriate for all seven sites.

EPA's Aggregation Policy – even if it had not been invalidated by *Mead* – provides that two sites may be aggregated only if, among other common factors, a single strategy for cleanup is appropriate. A single strategy for cleanup is not appropriate for the seven sites in Sauget Area 1. No cleanup is appropriate for purported "Source 1," since it was already remediated in 1990 under IEPA's supervision. With regard to the other sites, at a minimum, different methods would have to be used for the "impounded" sections of Dead Creek, the other impoundments, the landfills, and the areas of contaminated sediment.

The purported "source" areas have already had different remedies. As described above, CS-A has already undergone a removal action in 1990 that removed 27,500 tons of contaminated sediment. No further action is planned for this "source." "Source 4" has undergone two removal actions — one in 1988 and one in 1995.³⁷ The 1988 removal action involved the fencing of the Site, while the 1995 removal action involved the excavation of PCBs, organics, metals, and dioxin-contaminated soils, and solidification of oil pits. In addition, as mentioned above, Dead Creek is being addressed through the ongoing removal action to remove contaminated sediments from the various creek segments, with the goal of eliminating any future risk from those "sources." The other "Source" areas 4, 5, 6, and 7 are posing little threat, and may not warrant any further action. See generally, Human Health Risk Assessment (approved Nov. 15, 2001); Menzie-Cura Report at 6. Thus, the Area 1 "sources" have been addressed through a variety of different remedies in the past, and there are no plans for one selected remedy in the future.

F. The sites do not all involve the same potentially responsible parties.

EPA's Aggregation Policy – even if it had not been invalidated by *Mead* – provides that two sites may be aggregated only if, among other common factors, they involve the same PRPs. The seven sites in Sauget Area 1 involve a large number of different PRPs. See section VIII(B), above. EPA attempts to develop a common owner or PRP link by citing Monsanto's alleged involvement at almost all of the "sources." See HRS Documentation Record at 19, 24, 43, 49, 56, and 64. What EPA fails to discuss in the HRS Documentation Record, however, is the significant number of other PRPs who had some type of involvement with the "sources" in Area 1. Not only were there a variety of different owners and operators of the sources in Area 1, but there were also a variety of different generators associated with the various

AOC at §III(1); see also HRS Documentation Record at page 44.

Area 1 sources. For example, according to the Administrative Order by Consent for the Area 1 EE/CA and RI/FS, EPA alleges that the following entities contributed to the wastes disposed of at "Source 4": Monsanto Company, Mobil Oil Corporation, and Wiese Planning and Engineering, Inc. See AOC at § III(3). EPA also alleges that the following entities contributed to the wastes at "Source 4": Monsanto Company, Cerro Copper Products Company, Cardinal Construction Company, Amax Zinc Corporation, Mobil Oil Corporation, Ethyl Petroleum, Village of Sauget, and Olin Corporation. See id. Finally, EPA alleges that the following entities contributed to the wastes in "Source 2": Monsanto Company, Midwest Rubber Reclaiming and Midwest Rubber Trustees, Cerro Copper Products Company, Mobil Oil Corporation, Rogers Cartage Company, Sterling Steel Casting Co., Darling Fertilizer, Ruan Transport Corporation, Waggoner & Company, Industrial Salvage Disposal, Inc., Sauget & Company, Paul Sauget, and Olin Corporation. See id. This is just a sampling of the wide variety of parties with some connection to the Sauget Area 1 "sources."

IX. EPA IMPROPERLY ALLUDES TO "OTHER POSSIBLE SOURCES"

EPA discusses "other possible sources" in the listing package, even though EPA does not include the alleged "sources" in the scoring. See HRS Documentation Record at 70-72. In particular, EPA discusses "Area M," "Area N," and "Areas of Contaminated Soil." Id. EPA acknowledges that "Area M is not evaluated as a source for this HRS documentation package," id. at 71, but fails to make the same statement regarding the other two alleged possible "sources". The discussion of all of these possible sources has no impact on the scoring, but improperly tars these areas with the implication that they are part of the proposed Superfund site. Moreover, inclusion of this discussion suggests that Monsanto/Solutia have some obligation to respond to the vague, undocumented suggestion that there may be other "sources." Monsanto/Solutia therefore object to this portion of the listing package (i.e., HRS Documentation Record at 70-72) and reserve the right to provide substantive comments and to supplement the administrative record regarding any and all alleged facts and issues raised in this portion at such time that they either become relevant to the scoring or litigation thereof or are re-published, re-alleged or pressed by EPA.

X. CORRECTLY SCORED, SAUGET AREA 1 SITES DO NOT HAVE THE MINIMUM 28.50 SCORE REQUIRED FOR NPL LISTING

Menzie-Cura rescored Sauget Area 1 in light of the corrections discussed above. See Menzie-Cura Report at 35-42. Using the corrections as applied to the aggregated seven areas, and using highly conservative assumptions, Menzie-Cura demonstrates that the correct score should be no higher than 9.7. This corrected score for the aggregated seven areas is far below the minimum 28.50 score required for NPL listing.

Menzie-Cura also applied the corrections to the seven disaggregated areas. The corrected scores for each of the seven disaggregated areas were no higher than 5.45 for "Sources"

2, 3, 4, 5, and 6, and 9.7 for "Source" 7." All of the seven disaggregated area scores are far below the minimum 28.50 score required for NPL listing.

Menzie-Cura also calculated several alternative scores for the sites as aggregated and disaggregated, using numerous combinations of accepting only some of the corrections. Every alternative combination yielded a score far below the minimum 28.50 score required for NPL listing.

XI. EPA FAILED TO OBTAIN THE GOVERNOR'S CONCURRENCE FOR THE PRESENT LISTING PROPOSAL

EPA is required to make a written inquiry to the governor of the affected State to determine the governor's position on any proposal to list a site on the NPL, and to request a written response from the governor. See Memorandum from Elliot P. Laws to Regional EPA Administrators on Coordinating With the States on National Priorities List Decisions (Nov. 14, 1996). For the current Sauget Area 1 listing proposal, there is nothing in the record suggesting that EPA has requested or received Illinois Governor George H. Ryan's position. Failure to seek the State's views is particularly egregious in the current matter, since Monsanto/Solutia has cleaned and filled Dead Creek and taken other steps in recent years to mend fences, literally and figuratively, with the State.

We are aware that the position of former Governor Jim Edgar was obtained in 1996 for a previous proposal to list Sauget Area 1. However, the outdated documentation cannot substitute for a current Governor's letter, and certainly does not take into consideration the cleaning of Dead Creek, the voluminous risk studies performed since 1996, and other recent developments. (Nor is even the stale documentation included in the References for the current listing package.)

XII. EPA'S LISTING VIOLATES DUE PROCESS

The HRS ranking process and NPL listing process deprive Monsanto/Solutia of their property without due process of law. As an alleged potentially responsible party, Monsanto/Solutia is being deprived of property including, but not limited to, the following: (1) Monsanto's/Solutia's reputation in the business community and among residents of Sauget and Cahokia, Illinois area; (2) the value of the Solutia Krummrich Plant property, which has been diminished by the proposal to list the Sauget Area 1 sites and which would be diminished further if the NPL listing were finalized; and (3) the costs of cleanup for Sauget Area 1. This deprivation is without due process of law for reasons including, but not limited to, EPA's failure to provide Monsanto/Solutia with a full evidentiary hearing, including an opportunity to cross-examine EPA's witnesses, and an adequate opportunity to present justifications for abandoning the listing process.

XIII. CONCLUSION

For all of the reasons specified above, the listing of Sauget Area 1 would be arbitrary and capricious and an abuse of discretion. Monsanto/Solutia therefore request that EPA not finalize the NPL proposal of Sauget Area 1 and that EPA remove Sauget Area 1 from the list of proposed NPL sites and from any further consideration for listing

Respectfully submitted,

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Enclosures